

WHAT IS CLAIMED IS:

1. An network node for providing pattern-based decentralized network management, comprising:
 - 5 a router connected to at least one other network node of a plurality of network nodes, and
 - a processor configured to receive a first data set describing a network management program and mobile state information, determine whether to send a second data set describing the network management program to the at least one other network node of the plurality of network nodes, transmit the mobile state information to the at least one other network node of the plurality of network nodes, and selectively transmit the second data set based upon the determination to the at least one other network node of the plurality of network nodes.
- 10 2. The system of claim 1, wherein the processor executes the network management program, which is configured to perform computation and data aggregation.
- 15 3. The system of claim 1, wherein the first data set and the second data set are one of the same and different.
4. The system of claim 1, wherein the processor receives a checksum associated with the network management program.
- 20 5. The system of claim 4, wherein the processor compiles the first data set creating the second data set.
6. The system of claim 5, wherein the processor compares the second data set with the checksum.
- 25 7. The system of claim 1, wherein the first data set is a source code file describing the network management program.
8. The system of claim 1, wherein the processor utilizes a Unix operating system.
9. The system of claim 1, wherein the processor creates a record in a database recording an address of the at least one other network node and the checksum.
- 30 10. The system of claim 1, wherein the processor determines whether to send the second data set to the at least one other network node of the plurality of

network nodes if a search of a database finds no record containing both an address of the at least one other network node and the checksum.

11. A method for providing pattern-based decentralized network management, comprising the steps of:

5 receiving a first data set describing a network management program and mobile state information at a first network node of a plurality of network nodes;

determining whether to send a second data set describing the network management program to a second network node of the plurality of network nodes, wherein the second network node is connected to the first network node;

transmitting the mobile state information to the second network node; and selectively transmitting the second data set based upon the determination to the second network node.

15 12. The method of claim 11, further comprising the step of executing the network management program, which is configured to perform computation and data aggregation.

13. The method of claim 11, wherein the first data set and the second data set are one of the same and different.

20 14. The method of claim 11, further comprising the step of receiving a checksum associated with the network management program.

15. The method of claim 14, further comprising the step of compiling the first data set creating the second data set.

16. The method of claim 15, further comprising the step of comparing the second data set with the checksum.

25 17. The method of claim 11, wherein the first data set is a source code file describing the network management program.

18. The method of claim 11, further comprising the step of creating a record in a database recording an address of the second network node and the checksum.

30 19. The method of claim 11, further comprising the step of determining whether to send the second data set to the second network node of the plurality of

network nodes if a search of a database finds no record containing both an address of the second network node and the checksum.

20. A software arrangement for providing pattern-based decentralized network management, wherein the software arrangement, when executed by a processing arrangement, is configured to cause the processing arrangement to execute the steps comprising of:
 - 5 receiving a first data set describing a network management program and mobile state information at a first network node of a plurality of network nodes;
 - 10 determining whether to send a second data set describing the network management program to a second network node of the plurality of network nodes, wherein the second network node is connected to the first network node;
 - 15 transmitting the mobile state information to the second network node; and selectively transmitting the second data set based upon the determination to the second network node.
21. The software arrangement of claim 20, further comprising the step of executing the network management program, which is configured to perform computation and data aggregation.
- 20 22. The software arrangement of claim 20, wherein the first data set and the second data set are one of the same and different.
23. The software arrangement of claim 20, further comprising the step of receiving a checksum associated with the network management program.
24. The software arrangement of claim 23, further comprising the step of compiling the first data set creating the second data set.
- 25 25. The software arrangement of claim 24, further comprising the step of comparing the second data set with the checksum.
26. The software arrangement of claim 20, wherein the first data set is a source code file describing the network management program.
- 30 27. The software arrangement of claim 20, further comprising the step of creating a record in a database recording an address of the second network node and the checksum.

28. The software arrangement of claim 20, further comprising the step of determining whether to send the second data set to the second network node of the plurality of network nodes if a search of a database finds no record containing both an address of the second network node and the checksum.